

**Notice of Allowability**

Application No.

09/539,024

Examiner

Justin I. King

Applicant(s)

GLASSEN ET AL.

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**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 5/6/05.
2. ☒ The allowed claim(s) is/are 1,3-21,23-42 and 44-54.
3. ☒ The drawings filed on 30 March 2000 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All   b) ☐ Some\*   c) ☐ None   of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

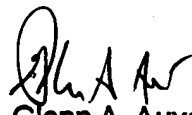
\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

  
Glenn A. Auve  
Primary Patent Examiner  
Technology Center 2100

## DETAILED ACTION

### *Allowable Subject Matter*

1. Claims 1, 3-21, 23-42, and 44-54 are allowed.
2. The following is an examiner's statement of reasons for allowance:

Referring to claim 1: The prior arts on record do not explicit disclose or teach the claimed invention. Appellants' invention is directed to measuring the utilization of individual components of channels. That is, a channel has a plurality of individual components and each selected individual component is monitored and measured to determine the utilization of that particular component of the channel. This is advantageous because the modern channels, such as FICON channels, are able to multiplex many I/O operations at the same time and can pipeline the execution of channel programs, and thus, measuring the utilization of individual components of a channel facilitates planning for those channels.

Appellants claim a method for determining utilization of channel components of a computing environment. The method includes, for instance, obtaining individualized measurement data for each component of selected multiple components of a plurality of components of a channel; and using said individualized measurement data to determine utilization of each component of at least two components of said selected multiple components. Thus, in appellants' claimed invention, measurement data is obtained for each component of selected multiple components of a channel and that measurement data is individual to each component. Further, the individualized measurement data is used to determine utilization of each component of at least two components of the selected multiple components. Thus, utilization is

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determined for particular components of a channel. This is very different from the teachings of Galbraith, Gutta or Patterson, either alone or in combination.

Referring to claims 3-14: Claims are allowable because they incorporate the parent claim's allowable subject matter.

Referring to claim 15: The prior arts on record do not explicit disclose or teach the claimed invention. Appellants' invention is directed to measuring the utilization of individual components of channels. That is, a channel has a plurality of individual components and each selected individual component is monitored and measured to determine the utilization of that particular component of the channel. This is advantageous because the modem channels, such as FICON channels, are able to multiplex many I/O operations at the same time and can pipeline the execution of channel programs, and thus, measuring the utilization of individual components of a channel facilitates planning for those channels.

Appellants claim a method for determining utilization of channel components of a computing environment. The method includes, for instance, obtaining individualized measurement data for each component of selected multiple components of a plurality of components of a channel; and using said individualized measurement data to determine utilization of each component of at least two components of said selected multiple components. Thus, in appellants' claimed invention, measurement data is obtained for each component of selected multiple components of a channel and that measurement data is individual to each component. Further, the individualized measurement data is used to determine utilization of each component of at least two components of the selected multiple components. Thus, utilization is

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determined for particular components of a channel. This is very different from the teachings of Galbraith, Gutta or Patterson, either alone or in combination.

Referring to claims 16-19: Claims are allowable because they incorporate the parent claim's allowable subject matter.

Referring to claim 20: The prior arts on record does not explicit disclose or teach Applicant's alleged invention in the instance Application. Appellants claim a method of determining utilization of channels of a computing environment, in which the computing environment includes a plurality of logical partitions (e.g., claim 20). The method includes, for instance, obtaining, on behalf of a logical partition involved in determining utilization of a channel, measurement data for the channel, the measurement data being representative of use of the channel by the logical partition and representative of use by one or more other logical partitions of the plurality of logical partitions; and using the measurement data to determine utilization of the channel. Thus, in this aspect of appellants' claimed invention, the measurement data obtained on behalf of a particular logical partition is measurement data representative of use by a plurality of logical partitions (e.g., the logical partition involved in determining the utilization, as well as one or more other logical partitions). This is very different from the teachings of Galbraith, Gutta and Patterson, either alone or in combination.

Although Applicant's own prior art, Galbraith, teaches a plurality of logical partitions, Applicant asserts that Galbraith does not teach or suggest that measurement data obtained on behalf of a particular logical partition is representative of use by multiple logical partitions. Instead, Applicant asserts that Applicant's own prior art, Galbraith, the measurement data for each logical partition is exclusive for that logical partition only. Therefore, the measurements

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provided in Galbraith are for a single operating system (i.e., a single logical partition), and not for multiple logical partitions, as claimed by appellants. Thus, appellants respectfully submit that Galbraith does not describe, teach or suggest appellants' claimed invention.

Referring to claim 21: The prior arts on record do not explicit disclose or teach the claimed invention. Appellants' invention is directed to measuring the utilization of individual components of channels. That is, a channel has a plurality of individual components and each selected individual component is monitored and measured to determine the utilization of that particular component of the channel. This is advantageous because the modem channels, such as FICON channels, are able to multiplex many I/O operations at the same time and can pipeline the execution of channel programs, and thus, measuring the utilization of individual components of a channel facilitates planning for those channels.

Appellants claim a system for determining utilization of channel components of a computing environment. The method includes, for instance, obtaining individualized measurement data for each component of selected multiple components of a plurality of components of a channel; and using said individualized measurement data to determine utilization of each component of at least two components of said selected multiple components. Thus, in appellants' claimed invention, measurement data is obtained for each component of selected multiple components of a channel and that measurement data is individual to each component. Further, the individualized measurement data is used to determine utilization of each component of at least two components of the selected multiple components. Thus, utilization is determined for particular components of a channel. This is very different from the teachings of Galbraith, Gutta or Patterson, either alone or in combination.

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Referring to claims 23-32: Claims are allowable because they incorporate the parent claim's allowable subject matter.

Referring to claim 33: The prior arts on record do not explicit disclose or teach the claimed invention. Appellants' invention is directed to measuring the utilization of individual components of channels. That is, a channel has a plurality of individual components and each selected individual component is monitored and measured to determine the utilization of that particular component of the channel. This is advantageous because the modem channels, such as FICON channels, are able to multiplex many I/O operations at the same time and can pipeline the execution of channel programs, and thus, measuring the utilization of individual components of a channel facilitates planning for those channels.

Appellants claim a system for determining utilization of channel components of a computing environment. The method includes, for instance, obtaining individualized measurement data for each component of selected multiple components of a plurality of components of a channel; and using said individualized measurement data to determine utilization of each component of at least two components of said selected multiple components. Thus, in appellants' claimed invention, measurement data is obtained for each component of selected multiple components of a channel and that measurement data is individual to each component. Further, the individualized measurement data is used to determine utilization of each component of at least two components of the selected multiple components. Thus, utilization is determined for particular components of a channel. This is very different from the teachings of Galbraith, Gutta or Patterson, either alone or in combination.

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Referring to claims 34-37: Claims are allowable because they incorporate the parent claim's allowable subject matter.

Referring to claim 38: The prior arts on record does not explicit disclose or teach Applicant's alleged invention in the instance Application. Appellants claim a system of determining utilization of channels of a computing environment, in which the computing environment includes a plurality of logical partitions (e.g., claim 20). The method includes, for instance, obtaining, on behalf of a logical partition involved in determining utilization of a channel, measurement data for the channel, the measurement data being representative of use of the channel by the logical partition and representative of use by one or more other logical partitions of the plurality of logical partitions; and using the measurement data to determine utilization of the channel. Thus, in this aspect of appellants' claimed invention, the measurement data obtained on behalf of a particular logical partition is measurement data representative of use by a plurality of logical partitions (e.g., the logical partition involved in determining the utilization, as well as one or more other logical partitions). This is very different from the teachings of Galbraith, Gutta and Patterson, either alone or in combination.

Although Applicant's own prior art, Galbraith, teaches a plurality of logical partitions, Applicant asserts that Galbraith does not teach or suggest that measurement data obtained on behalf of a particular logical partition is representative of use by multiple logical partitions. Instead, Applicant asserts that Applicant's own prior art, Galbraith, the measurement data for each logical partition is exclusive for that logical partition only. Therefore, the measurements provided in Galbraith are for a single operating system (i.e., a single logical partition), and not

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for multiple logical partitions, as claimed by appellants. Thus, appellants respectfully submit that Galbraith does not describe, teach or suggest appellants' claimed invention.

Referring to claims 39-40: The prior arts on record do not explicit disclose or teach the claimed invention. Appellants' invention is directed to measuring the utilization of individual components of channels. That is, a channel has a plurality of individual components and each selected individual component is monitored and measured to determine the utilization of that particular component of the channel. This is advantageous because the modem channels, such as FICON channels, are able to multiplex many I/O operations at the same time and can pipeline the execution of channel programs, and thus, measuring the utilization of individual components of a channel facilitates planning for those channels.

Appellants claim a system for determining utilization of channel components of a computing environment. The method includes, for instance, obtaining individualized measurement data for each component of selected multiple components of a plurality of components of a channel; and using said individualized measurement data to determine utilization of each component of at least two components of said selected multiple components. Thus, in appellants' claimed invention, measurement data is obtained for each component of selected multiple components of a channel and that measurement data is individual to each component. Further, the individualized measurement data is used to determine utilization of each component of at least two components of the selected multiple components. Thus, utilization is determined for particular components of a channel. This is very different from the teachings of Galbraith, Gutta or Patterson, either alone or in combination.



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Referring to claim 41: The prior arts on record does not explicit disclose or teach Applicant's alleged invention in the instance Application. Appellants claim a system of determining utilization of channels of a computing environment, in which the computing environment includes a plurality of logical partitions (e.g., claim 20). The method includes, for instance, obtaining, on behalf of a logical partition involved in determining utilization of a channel, measurement data for the channel, the measurement data being representative of use of the channel by the logical partition and representative of use by one or more other logical partitions of the plurality of logical partitions; and using the measurement data to determine utilization of the channel. Thus, in this aspect of appellants' claimed invention, the measurement data obtained on behalf of a particular logical partition is measurement data representative of use by a plurality of logical partitions (e.g., the logical partition involved in determining the utilization, as well as one or more other logical partitions). This is very different from the teachings of Galbraith, Gutta and Patterson, either alone or in combination.

Although Applicant's own prior art, Galbraith, teaches a plurality of logical partitions, Applicant asserts that Galbraith does not teach or suggest that measurement data obtained on behalf of a particular logical partition is representative of use by multiple logical partitions. Instead, Applicant asserts that Applicant's own prior art, Galbraith, the measurement data for each logical partition is exclusive for that logical partition only. Therefore, the measurements provided in Galbraith are for a single operating system (i.e., a single logical partition), and not for multiple logical partitions, as claimed by appellants. Thus, appellants respectfully submit that Galbraith does not describe, teach or suggest appellants' claimed invention.

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Referring to claim 42: The prior arts on record do not explicit disclose or teach the claimed invention. Appellants' invention is directed to measuring the utilization of individual components of channels. That is, a channel has a plurality of individual components and each selected individual component is monitored and measured to determine the utilization of that particular component of the channel. This is advantageous because the modem channels, such as FICON channels, are able to multiplex many I/O operations at the same time and can pipeline the execution of channel programs, and thus, measuring the utilization of individual components of a channel facilitates planning for those channels.

Appellants claim a program storage device readable by a machine for determining utilization of channel components of a computing environment. The method includes, for instance, obtaining individualized measurement data for each component of selected multiple components of a plurality of components of a channel; and using said individualized measurement data to determine utilization of each component of at least two components of said selected multiple components. Thus, in appellants' claimed invention, measurement data is obtained for each component of selected multiple components of a channel and that measurement data is individual to each component. Further, the individualized measurement data is used to determine utilization of each component of at least two components of the selected multiple components. Thus, utilization is determined for particular components of a channel. This is very different from the teachings of Galbraith, Gutta or Patterson, either alone or in combination.

Referring to claims 44-49: Claims are allowable because they incorporate the parent claim's allowable subject matter.

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Referring to claim 50: The prior arts on record do not explicit disclose or teach the claimed invention. Appellants' invention is directed to measuring the utilization of individual components of channels. That is, a channel has a plurality of individual components and each selected individual component is monitored and measured to determine the utilization of that particular component of the channel. This is advantageous because the modem channels, such as FICON channels, are able to multiplex many I/O operations at the same time and can pipeline the execution of channel programs, and thus, measuring the utilization of individual components of a channel facilitates planning for those channels.

Appellants claim an article of manufacture for determining utilization of channel components of a computing environment. The method includes, for instance, obtaining individualized measurement data for each component of selected multiple components of a plurality of components of a channel; and using said individualized measurement data to determine utilization of each component of at least two components of said selected multiple components. Thus, in appellants' claimed invention, measurement data is obtained for each component of selected multiple components of a channel and that measurement data is individual to each component. Further, the individualized measurement data is used to determine utilization of each component of at least two components of the selected multiple components. Thus, utilization is determined for particular components of a channel. This is very different from the teachings of Galbraith, Gutta or Patterson, either alone or in combination.

Referring to claims 51-53: Claims are allowable because they incorporate the parent claim's allowable subject matter.

Referring to claim 54: The prior arts on record does not explicit disclose or teach Applicant's alleged invention in the instance Application. Appellants claim a programmable storage device readable by a machine of determining utilization of channels of a computing environment, in which the computing environment includes a plurality of logical partitions (e.g., claim 20). The method includes, for instance, obtaining, on behalf of a logical partition involved in determining utilization of a channel, measurement data for the channel, the measurement data being representative of use of the channel by the logical partition and representative of use by one or more other logical partitions of the plurality of logical partitions; and using the measurement data to determine utilization of the channel. Thus, in this aspect of appellants' claimed invention, the measurement data obtained on behalf of a particular logical partition is measurement data representative of use by a plurality of logical partitions (e.g., the logical partition involved in determining the utilization, as well as one or more other logical partitions). This is very different from the teachings of Galbraith, Gutta and Patterson, either alone or in combination.

Although Applicant's own prior art, Galbraith, teaches a plurality of logical partitions, Applicant asserts that Galbraith does not teach or suggest that measurement data obtained on behalf of a particular logical partition is representative of use by multiple logical partitions. Instead, Applicant asserts that Applicant's own prior art, Galbraith, the measurement data for each logical partition is exclusive for that logical partition only. Therefore, the measurements provided in Galbraith are for a single operating system (i.e., a single logical partition), and not for multiple logical partitions, as claimed by appellants. Thus, appellants respectfully submit that Galbraith does not describe, teach or suggest appellants' claimed invention.

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4. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### *Conclusion*

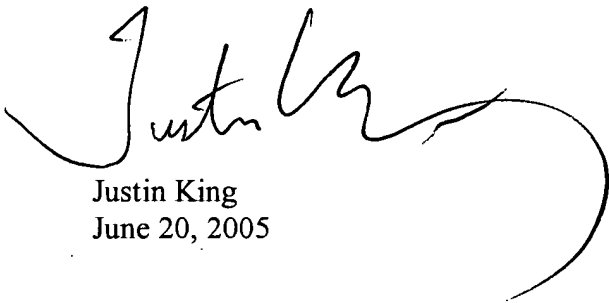
5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Justin I. King whose telephone number is 571-272-36283628. The examiner can normally be reached on max flex. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark H. Rinehart can be reached on 571-272-3632 or on the central telephone number, (571) 272-2100. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Lastly, paper copies of cited U.S. patents and U.S. patent application publications will cease to be mailed to applicants with Office actions as of June 2004. Paper copies of foreign patents and non-patent literature will continue to be included with office actions. These cited U.S. patents and patent application publications are available for download via the Office's

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PAIR. As an alternate source, all U.S. patents and patent application publications are available on the USPTO web site ([www.uspto.gov](http://www.uspto.gov)), from the Office of Public Records and from commercial sources. Applicants are referred to the Electronic Business Center (EBC) at <http://www.uspto.gov/ebc/index.html> or 1-866-217-9197 for information on this policy. Requests to restart a period for response due to a missing U.S. patent or patent application publications will not be granted.



Justin King  
June 20, 2005



Glenn A. Auve  
Primary Patent Examiner  
Technology Center 2100